

THE CLAIMS

What is claimed is:

- 5 1. A coffee plant cell that produces galacto-mannans and that is modified to reduce endogenous levels of α -D-galactosidase activity in order to increase galactose branching of the galacto-mannans.
2. The coffee plant cell according to claim 1, containing a nucleic acid that is
10 transcribed to a ribonucleic acid which is antisense to mRNA, or a part thereof, derived from the α -D-galactosidase gene of the cell.
3. The coffee plant cell according to claim 2, wherein the nucleic acid is under the control of a constitutive or inducible promoter.
- 15 4. The coffee plant cell according to claim 3, wherein the promoter is a coffee *csp1* promoter.
5. The coffee plant cell of claim 2 wherein the antisense nucleic acid is any
20 ribonucleic acid capable of forming dimers under physiological conditions.
6. A coffee plant containing a coffee plant cell according to claim 1.
7. Coffee beans obtainable from the coffee plant according to claim 6.
- 25 8. In a method for preparing a coffee beverage, the improvement which comprises obtaining the beverage from the coffee beans according to claim 7
9. In a method for preparing a coffee beverage, the improvement which comprises
30 obtaining the beverage from coffee beans derived from a coffee plant according to claim 6.
10. A method for increasing the solubility of coffee particles, which comprises obtaining the particles from the coffee beans according to claim 7.

11. A method for increasing the solubility of coffee particles, which comprises obtaining the particles from coffee beans derived from a coffee plant according to claim 6.